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Wisconsin Department of Transportation
Division of Transportation System Development

Utility Coordination Newsletter

Working Together to Improve Utility Coordination

Articles Included

WTBA WISCONSIN TRANSPORTATION BUILDERS ASSOCIATION

The Wisconsin Transportation Builders Association (WTBA), the Wisconsin Department of Transportation (WisDOT), and the utility industry have a mutual goal: to ensure contractors can build projects safely for WisDOT and the communities throughout Wisconsin. How does this happen? The three C's (communication, coordination, and cooperation) are always key.

For the WTBA, Matt Grove's responsibilities include being the liaison with WisDOT and the utility industry. He has been with the WTBA for 16 years. As the Director of Engineering and Construction, he represents 130+ contractor members and another 150+ associate members (suppliers, consultants,

financial institutions, or anyone with a stake in construction).

Utility relocations and related delays are one of the biggest issues facing the WTBA and their members. “The goal is to not have any conflicts on a project. Unidentified and unresolved conflicts create delays and safety concerns to our contractors, project owners, and the public. Solid policies and communication are critical during project design and construction, to ensure that utilities are properly relocated prior to construction”, Matt said.

The WTBA has taken an active role to improve communication and utility coordination policies. Matt said: “We have worked closely with WisDOT and the utility industry over the years to address concerns and risks associated with utility conflicts and not knowing the actual location of the utilities. While our committee work has resulted in better understanding of the issues and beneficial changes, our work is not done. We feel that further emphasis must be put on the process, including better information related to the vertical location of utilities.”

Over the last several years, the WTBA has been supportive of WisDOT’s exploration and testing of emerging technology related to the location of underground utilities. This started with the pilot projects that utilized SPAR and Ground Penetrating Radar (GPR) in order to obtain XYZ coordinates of utility facilities for use during the design process. The executive summary for these pilot projects can be found using the following link: Wisconsin Department of Transportation 3-D Utility Survey Practices. Presently, the WTBA is participating in WisDOT’s efforts to collect and evaluate XYZ coordinates that are obtained during the installation of utility facilities. For more information about this initiative, see the article titled “3D Utility Locate Pilot Program on STH 50” which was in the Utility Coordination Newsletter, Volume 10, Published Winter 2021, and can be found using the following link: Wisconsin Department of Transportation Utility Coordination Newsletter.

“This is a promising effort that our industry strongly supports. The WTBA understands 3D location and data use comes with challenges, but it is extremely important to address these challenges and begin working toward implementing change. Knowing the location of underground utilities will be extremely valuable for all parties involved”, Matt said.

As more utilities use highway right-of-way and adjacent easements, it is imperative that each stakeholder is represented, invested, and understands the importance of participating in the committees that are made up of the various stakeholders. By working together, WisDOT, the WTBA, and the utility industry will improve the utility coordination process and make WisDOT’s construction projects safer for all parties.

If you have any questions, please send them to:
DOTDTSDCOUtilityCoordination@dot.wi.gov

Just a Small Moment of Time

By the time you read this, Ryan Arnold will be in the process of moving from one time zone to another. For the month of May, it will be a mix of Central Standard Time at Joint Base San Antonio-Lackland, Texas, and Eastern Standard Time in Joint Base McGuire-Dix-Lakehurst, New Jersey. Come June, he will be in the West Africa Time zone. He will be deployed to the country of Niger that is 6 hours ahead of his hometown of Mosinee, Wisconsin.

June 2020. Duty during the MN Civil Unrest.

Ryan's current deployment will be to the south-central part of the Sahara Desert (aka The Greatest Desert). Spanning 3,600,000 square miles, it is the largest hot desert in the world. His past deployments have included Kuwait (twice), Saudi Araba, and Iraq as a part of the Air Force, Air Force Reserves and currently the Minnesota Air National Guard. Also, he has had other shorter deployments which include missions to Germany, Hawaii, England and Canada.

In the Air National Guard, he is a Civil Engineer Officer with 25 years of service. Ryan's responsibilities center around managing, reviewing and sometimes, designing plans for each location he is deployed to. His current deployment will support the overall intelligence, surveillance and reconnaissance mission currently taking place in Africa. The number one priority will be to keep the runway open for the flying missions. This is done by following current FAA Standards and Air Force doctrine at every location.

Being an engineering officer in the Minnesota Air National Guard also has various responsibilities. These can best be described as those of a municipal public works department. This includes the installation, maintenance, and repair of base infrastructure such as sanitary sewer, watermain, storm sewer, power production and electrical distribution, road construction and structures. Then added to the mix, there is the emergency management type work: fire department operations, bomb detection and bomb disposal.

Ryan has been working for WisDOT for the past six years. Currently, he is a Technical Services Supervisor in the North Central Region and supervises employees in Wisconsin Rapids and Rhinelander. These employees work in the areas of Utility Coordination, Utility Permitting, Soils, Pavements and Materials. Before joining WisDOT, he was a consultant for 10 years and has a design and construction background gained from working on municipal, private and a variety of State projects. The State projects he has designed include numerous WisDOT highway projects along with projects at various state parks including Rib Mountain State Park in Central Wisconsin. He holds a Bachelor's of Science in Civil Engineering from UW-Milwaukee and is a Wisconsin licensed professional engineer. In his spare time, Ryan enjoys the outdoors such as camping with the family, hunting, fishing and perhaps the occasional zip line adventure.

Back home Ryan's family includes his wife Jen, daughter, Alyson, 11 and a son, Erick, 6. Thank you to Ryan for his service and to his family who makes his military service possible.

UN #11-02

Let Review Standards for Temporary Support

Wis. Stat. s. 182.0175(2)(a)2 requires WisDOT designers to prepare plans that will avoid, as much as possible, any interference with utility transmission facilities. The designer is expected to avoid utility facilities when feasible by making suitable and cost-effective adjustments to the horizontal alignment, vertical profile, structure plans, storm sewer plans, traffic signal plans, etc. When it's not feasible to design around a utility facility, the utility owner needs to mitigate the conflict. The most common mitigation method is for a utility owner to relocate their facility, but another option is to temporarily support or protect their facility.

Temporary support or protection of a utility facility during construction can be applied to buried facilities, pole holds, wire supports and the temporary support of a utility facility on a bridge. This can be more advantageous than relocating a utility facility, but it can also create complications during construction.

If a utility company is considering temporary support or protection of their facility, good coordination between the project designers and utility company is invaluable. First and foremost, the utility company and WisDOT need to analyze and determine if it's feasible. Some items to consider during the analysis are as follows:

- **Type and size of utility facility:** This can indicate the type of temporary support or protection that may be needed and how it will affect construction operations.
- **Is the project buildable without the temporary support or protection:** Analyze and determine if the temporary support or protection

is needed to construct the road or is it just a convenience to the contractor to have the temporary support or protection.

- **Evaluate the area of construction operations:** This may indicate how construction operations will affect the temporary support or protection. Is the project buildable during the installation, use, and tear down of the temporary support or protection?
- **Cost:** Determine if temporary support or protection is the most cost-effective method. It maybe that relocating the facility, or an alternate design option is more cost effective.

Once the analysis is complete and it's decided that it is feasible to temporarily support or protect the utility facility, determine if the utility facility is compensable. Contact the region utility unit if you have any questions about compensability. For more information about compensability see Wis. Stat. s. 66.0831 and Chapter 11 of the WisDOT Guide to Utility Coordination (WGUC).

For temporary support or protection that is compensable, WisDOT would be responsible for all or a portion of the costs. The utility company can perform the work, or it can be incorporated into the highway improvement contract as a participating bid item. In either case, a utility agreement may be required. In addition and where a participating bid item will be incorporated into the WisDOT contract, a SMA or three-letter agreement will also be required. Contact the region utility unit in order to begin this process.

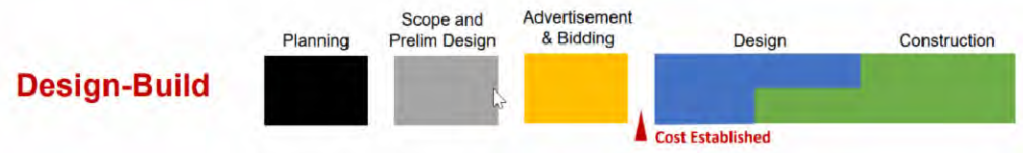
Questions can be submitted to DOTDTSDCOUtilityCoordination@dot.wi.gov
UN #11-03

Design-Build

Alternative contracting methods have been around in highway construction since the 1990s. The Federal Highway Administration (FHWA) has been supporting the use of alternative contracting methods like Design-Build, Construction Manager/General Contractor, and Alternate Technical Concepts.

In 2019, Wisconsin Statute 84.062 was enacted. This statute enabled Wisconsin to become the 48th state to allow design-build and required the WisDOT to administer a program for design-build projects. In addition, Wisconsin Statute 84.01(33) requires an inventory of projects to be ready for design-build selection.

Since then, the Alternative Contracting Unit within the Bureau of Project Development (BPD) has been working to implement the Design-Build Program for WisDOT. BPD has held meetings with internal and external stakeholders, which included the Bureau of Technical Services (BTS) Utility Unit.



From there, the BTS Utility Unit has met with a handful of representatives from the utility and highway contracting industry. Based upon the discussions, it has become abundantly clear that the utility coordination process for design-build projects should not be limited to the idea that one process would work for all design-build projects.

Currently, BPD is in the process of editing the preliminary version of the proposed guidance in-regards to the utility coordination process for design-build projects. WisDOT or its consultant will complete the highway improvement notification process for all design-build projects. In other words, the 1077 Process will always be completed prior to turning a project over to a design-builder. Whereas, three different methods will be utilized for the project plan transmittal and work plan review process, also known as the 1078 Process. For design-build projects, it should be noted that WisDOT will perform and/or have the final approval authority over the work plan approval, acquisition of utility land rights, utility agreements, and utility permits.

At this point, you may be wondering what are the three methods that will be utilized in order to complete the 1078 process? Well, these methods will include:

- WisDOT (or its consultant) performs the 1078 Process.
    - The 1078 Process will be completed prior to turning the project over to the design-builder.
    - This will result in the utility coordination process being completed based upon a 30% complete project plan.
- WisDOT (or its consultant) and the design-builder will each perform a portion of the 1078 Process.
    - The 1078 Process will be completed with select utilities prior to turning the project over to the design-builder.
    - In other words, the 1078 Process would be completed with certain utilities based upon the 30% complete project plan, whereas the 1078 Process would be completed with the remainder of the utilities based upon the 70% complete project plan.
- The design-builder performs the 1078 Process.
    - The 1078 Process will not be started prior to turning the project over to the design-builder.
    - In this case, the 1078 Process with all utilities will be completed based upon a 70% complete project plan.

Although the guidance for utility coordination on design-build projects is in draft status, this process will soon be utilized on WisDOT's highway improvement program. For more information about the WisDOT Design-Build Program, utilize the following link: Wisconsin Department of Transportation Design-Build Program (wisconsindot.gov). In addition, the following link will take you directly to a draft list of projects that have a potential to utilize the design-build process: WisDOT DB Program Potential Projects 11/17/2020 (wisconsindot.gov).

If you have any questions, please send them to:
DOTDTSDCOUtilityCoordination@dot.wi.gov

UN #11-04

Norman's Corner

Welcome to all new and recent additions to the utility coordination staff in the WisDOT regions and throughout the utility industry. To our internal WisDOT staff and our external partners, we want you to feel comfortable reaching out, asking questions, and bringing forward any new ideas you may have. When we ask questions about existing processes, this provides an opportunity for everyone to learn, further understand, and potentially find new ways to do our work more efficiently and effectively.

To our industry partners, we look forward to working together on existing and new initiatives. Utility coordination is a very complex and specialized area so it is vital that we work together to improve our work processes. It is important for WisDOT to understand the challenges our partners are faced with and for the utility industry to understand the processes and procedures that WisDOT must follow.

I would also like to highlight that for this newsletter, we were fortunate to be able to interview Ryan Arnold, Technical Services Supervisor in the North Central Region. Ryan, we all look forward to your safe return and would like to thank you and your family for your commitment to America. Thank you to all of our WisDOT partners who serve in our armed services, your dedication does not go unnoticed.

If you have a question or comment, please send it to:
DOTDTSDCOUtilityCoordination@dot.wi.gov

Thanks,
Norman Pawelczyk
Technical Services Chief
Division of Transportation Systems Development

UN #11-05

Transportation Utility Management System (TUMS) Updates

Phase 2 of the TUMS 2021 Project was successfully rolled out and implemented on April 14th. If you would like more information on what was included, please refer to Volume 10 of the Utility Coordination Newsletter that was published earlier this year.

Once again, a special thanks goes out to our testing team: Margaret Liedtke, Dylan Gates, Jeff Orr and Rabi Bista. They make time in their busy schedules to help test the system and ensure a smooth update process.

After publication of the previous newsletter, WisDOT moved forward with and completed adding a new date field to TUMS during Phase 2. This addition has resulted in two similar dates being displayed on the Effort Summary Screen in

TUMS - a **Required Project Plan Mail Date (RPPMD)** and a **Desired Project Plan Mail Date (DPPMD)**.

The RPPMD is the deadline for sending the project plan transmittal to the utilities on the project. This date is automatically calculated when a new project is created in TUMS and is intended to be adjusted once the project schedule is agreed upon with the Project Development Section.

Currently, the DPPMD is a fill-in date field. In the second half of 2021, WisDOT will fully develop and implement a new tool that will help the utility coordinator calculate this date based upon the selection of factors and their respective durations that are entered by the utility coordinator. The DPPMD is based upon the factors that influence a utility coordination timeline for state trunk and connecting highway projects. These factors include, but are not limited to, the duration for work plan development, plan and plat revisions, work plan review, rejection of work plans, complex land interests/rights, agreement process, stakeholder approval processes, permitting, ordering of materials, and the anticipated utility relocation work.

The region utility coordinator will review the RPPMD against the DPPMD in order to ensure that the utility coordination timeline is compatible and reasonable with each other and the project schedule. If the RPPMD and DPPMD are identical, the project should be delivered on-time. However, the project on-time delivery will be at risk when the RPPMD is later than the DPPMD.

If you have any questions, please send them to:
DOTDTSDCOUtilityCoordination@dot.wi.gov

Lynn Fiore,
Business Area Expert
DOT-DTSD-BTS-Utilities & Access
UN #11-06

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This bulletin has been developed to provide updates, clarifications, job aids and news pertaining to WisDOT utility coordination and related WisDOT programs, policy and services. Information published in this bulletin will be of interest to those who work closely with utility coordination.